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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/842,559	04/25/2001	Mark Rumer	05166P008	7598

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EXAMINER

JUNG, MIN

ART UNIT PAPER NUMBER

2663

DATE MAILED: 02/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/842,559

Applicant(s)

RUMER, MARK

Examiner

Min Jung

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,10,11,13,14 and 24-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,10,11,13,14 and 24-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-3, 10-11, 13-14, 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification as originally filed fails to provide support for “the TDM data frame comprising TDM data and transmission information” as recited in all of the claims.

The specification as originally filed fails to provide support for “the destination associated with the transmission information is another Ethernet switch” as recited in claim 27.

The specification as originally filed also fails to provide support for the machine accessible medium that provides instructions that, if executed by a machine, will cause the machine to perform operations including the steps to be performed as recited in claim 28.

Because such aspects had not been disclosed in the original specification, they are considered new matter.

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3. Claims 1-3, 10-11, 13-14, 24-28 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claims are directed to putting TDM stream in an Ethernet packet along with some kind of identification information, and regenerating TDM stream from the Ethernet packet. Specification fails to provide meaningful teachings to make and/or use the invention. It is not clear what TDM data frame is in the present invention; generally TDM data frame can be understood as T1/E1 type of synchronous transmissions. In synchronous transmission frame format, destination field or other types of source/destination identification is not included because channels are set up in a preset manner. Therefore, TDM data frame comprising TDM data and transmission information, which transmission information further including TDM block identification information and TDM destination data is not readily understood from the disclosure provided in the present specification. It is not clear if the core of the present invention is in carrying TDM block identification and TDM destination data in addition to regular data in each time slot. If it is, then it has to be made clear how it is done (since it is different from the conventional method of each time slot carrying just regular TDM data stream), and what the identity of "block identification" is; whether it is a sequence number, channel number, port number, type of data, synchronization information, or something else. It is also not clear if the block identification is carried in the time slot, derived from

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the some other information, looked up at the switch, or something else. Nowhere in the specification is the teaching of "TDM data frame comprising TDM data and transmission information" disclosed. It is examiner's understanding that the term 'transmission information' was used to broadly mean the 'TDM block information' and the 'TDM destination data'. From the description in the specification, it seems that TDM frame is written into the payload field of the Ethernet frame, and the so-called 'transmission information' is written in the destination field of the Ethernet frame. However, the source of the transmission information' is unknown. Specification fails to provide a support for the claim limitation "TDM data frame comprising TDM data and transmission information".

If TDM data frame in the specification is implemented using something other than synchronous type of communication scheme, it should have been described. It is not understood what applicant is intending to mean by "TDM stream" or "TDM data frame". If each time slot in the TDM frame contains a packet, and the payload and destination information recited are referring to the same included in each packet, a clear teaching regarding such aspect should have been provided. Further, specification fails to teach how the TDM stream is written into the first buffer and the second buffer. For example, does each buffer handle one time slot at a time, one frame at a time, a partial frame at a time, or something else? Similar question is raised for generating each Ethernet packet; is a whole frame put into the packet, or some kind of destination specific processing is performed to accumulate information for specific destination to put the accumulated data in the Ethernet packet?

Further, specifically regarding claim 24, specification further fails to disclose "transmission information data includes at least one of TDM destination data, TDM block identification data, and outgoing insertion timing data" as claimed. What specification teaches, instead, is "the information which indicates an appropriate time to insert the data into an outbound TDM stream could be (1) the destination of the TDM data, or (2) information identifying which block of the TDM stream the data came from in order to reassemble the data correctly in an outgoing TDM stream, or (3) both the destination information and the identifying information". So, in essence, the teaching is that the outgoing insertion timing data may be a TDM destination data, TDM block identification data, or both. Therefore, claim 24 is not properly described in the specification.

Teaching is simply lacking to make and/or use the invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 25, the limitation contradicts the limitation recited in claim 24. If "the information which indicates an appropriate time to insert the data....." is referring to the "outgoing insertion timing data", then the whole limitation is contradictory to the limitation of claim 24. If not, then, "the information" lacks antecedent basis, and is not clear what it is referring to.

Response to Arguments

6. Applicant's arguments filed August 26, 2004 have been fully considered but they are not persuasive.

Applicant has changed the claim limitation in question to recite "the TDM data frame comprises TDM data and transmission information", and alleges that the support may be found in paragraph 8 and paragraph 13, and Figure 7. However, the support is not found in any of these referred paragraphs or the referred drawing figure. The support is not found in any other parts of the original disclosure.

Applicant further argues that the enablement requirement does not require an applicant to disclose the invention in a manner that can be understood by a child, and cites various case laws. While the enablement requirement does not, and need not require a specification written at a child-level, it requires an understandable description which would allow one skilled in the art to make and practice the invention. The simple question raised in this office action and the last office action has not been answered nor has it been pointed out referring to the specification. TDM stream put into Ethernet frame for traversing Ethernet switch has been done in the past as shown by the Keenan reference (6,215,789). The present invention may be doing it differently by using the time to insert, TDM block ID, and the destination information. However, the appropriate teaching is not there to understand and make the invention. Examiner is not requiring a child's level description, Examiner is only requiring a meaningful, understandable description. Where do you get the transmission information? According to the

specification, it seem that it is not included in the TDM data frame, whereas the amended claims clearly recite that the transmission information is included in the TDM data frame. The identity of block information is an essential matter in understanding and making the invention, too. You need to disclose what the "TDM block information" is ; with just a name and without a clear identity, how can one of ordinary skill in the art make and use the invention without using a guesswork? The same is true for double buffering and data insertion timing. Of course, one of ordinary skill in the art knows the meaning and function of double buffering and data insertion timing. But, how is it applied in the present invention? TDM frame includes a plurality of time slots each carrying different data streams having different destinations. It would be a crucial difference whether to buffer one stream at a time or to buffer the whole frame at a time, for example. It is not required to spell out every detail of the invention, but enough teaching is required for one of ordinary skill in the art to make and use the invention.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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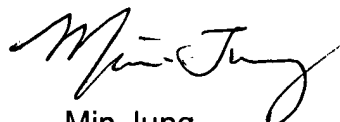
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-272-3127. The examiner can normally be reached on Monday, Thursday, Friday 7:30 - 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky Ngo can be reached on 571-272-3139. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJ
February 4, 2005


Min Jung
Primary Examiner